What is claimed is:

1. A method for manufacturing a commutator, the method comprising:

rotating an unfinished commutator product about a central axis of the unfinished commutator product, wherein the unfinished commutator product includes a plurality of commutator segments, each of which axially extends along an outer peripheral surface of the unfinished commutator product between a first axial end and a second axial end of the unfinished commutator product and includes a coil connection at a location adjacent the second axial end of the unfinished commutator product; and

axially moving at least one of a cutting means and the unfinished commutator product to create relative movement of the cutting means along a cutting region of the outer peripheral surface of the unfinished commutator product from the first axial end of the unfinished commutator product toward the second axial end of the unfinished commutator product while the unfinished commutator product is rotated, so that an outer surface of each commutator segment is cut from a cutting operation start point to a cutting operation end point of the commutator segment, wherein:

the cutting operation start point of each commutator segment is located in the first end of the unfinished commutator product;

the cutting operation end point of each commutator segment is located adjacent the coil connection of the commutator segment

between the cutting operation start point and the coil connection; and

a feed rate of the cutting means, which is an axial relative moving distance of the cutting means along the outer peripheral surface of the unfinished commutator product per revolution of the unfinished commutator product, is reduced in an end part of the cutting region, which includes the cutting operation end point and a section of the cutting region adjacent the cutting operation end point, in comparison to that of the rest of the cutting region.

2. The method according to claim 1, wherein the feed rate of the cutting means in the end part of the cutting region is in a range of 0.001-0.012 mm/revolution.

3. The method according to claim 1, wherein the axially moving of the at least one of the cutting means and the unfinished commutator product includes temporarily stopping of the axial movement of the at least one of the cutting means and the unfinished commutator product when the cutting means is relatively moved from the rest of the cutting region to the end part of the cutting region, so that the relative movement of the cutting means is temporarily stopped.

4. The method according to claim 1, wherein the axially moving of the at least one of the cutting means and the unfinished commutator product includes reducing an axial moving speed of the

at least one of the cutting means and the unfinished commutator product when the cutting means is relatively moved from the rest of the cutting region to the end part of the cutting region.

5. The method according to claim 1, wherein the rotating of the unfinished commutator product includes increasing a rotational speed of the unfinished commutator product when the cutting means is relatively moved from the rest of the cutting region to the end part of the cutting region.

6. The method according to claim 1, wherein a rotational speed of the unfinished commutator product is kept constant throughout the cutting region.

7. A method for manufacturing a commutator, the method comprising:

rotating an unfinished commutator product about a central axis of the unfinished commutator product, wherein the unfinished commutator product includes a plurality of commutator segments, each of which axially extends along an outer peripheral surface of the unfinished commutator product between a first axial end and a second axial end of the unfinished commutator product and includes a coil connection at a location adjacent the second axial end of the unfinished commutator product; and

axially moving at least one of a cutting means and the unfinished commutator product to create relative movement of the cutting means along a cutting region of the outer peripheral

surface of the unfinished commutator product from the first axial end of the unfinished commutator product toward the second axial end of the unfinished commutator product while the unfinished commutator product is rotated, so that an outer surface of each commutator segment is cut from a cutting operation start point to a cutting operation end point of the commutator segment, wherein:

the cutting operation start point of each commutator segment is located in the first end of the unfinished commutator product;

the cutting operation end point of each commutator segment is located adjacent the coil connection of the commutator segment between the cutting operation start point and the coil connection; and

a rotational speed of the unfinished commutator product is increased in an end part of the cutting region, which includes the cutting operation end point and a section of the cutting region adjacent the cutting operation end point, in comparison to that of the rest of the cutting region.

8. The method according to claim 7, wherein a feed rate of the cutting means, which is an axial relative moving distance of the cutting means along the outer peripheral surface of the unfinished commutator product per revolution of the unfinished commutator product, is kept constant throughout the cutting region.